

Title (en)
NUCLEIC ACID ISOTHERMAL SELF-AMPLIFICATION METHOD

Title (de)
VERFAHREN ZUR ISOTHERMISCHEN NUKLEINSÄURESELBSTVERSTÄRKUNG

Title (fr)
PROCÉDÉ D'AUTO-AMPLIFICATION ISOTHERMIQUE D'ACIDE NUCLÉIQUE

Publication
EP 3470529 B1 20220518 (EN)

Application
EP 17812611 A 20170607

Priority

- CN 201610420179 A 20160613
- CN 2017087414 W 20170607

Abstract (en)
[origin: EP3470529A1] Provided is a nucleic acid isothermal self-amplification method comprising, adding suitable palindrome complementary sequences at both ends of a target template to form a stem-loop structure spontaneously, and providing reagents and conditions as needed to perform self-amplification. The method does not require addition of additional amplification primers. The reagent comprises a DNA polymerase having a strand displacement activity. The method does not rely on exogenous amplification primers for amplification, has a constant amplification temperature without a complex temperature control equipment, and achieves rapid amplification. The amplification product is a long single-stranded DNA of a continuous complementary sequence and can be applied to special occasions. In addition, the amplification has no GC bias.

IPC 8 full level
C12Q 1/6844 (2018.01)

CPC (source: CN EP US)
C12N 9/1252 (2013.01 - EP US); **C12N 15/86** (2013.01 - US); **C12Q 1/68** (2013.01 - EP US); **C12Q 1/6844** (2013.01 - EP);
C12Q 1/6851 (2013.01 - US); **C12Q 1/686** (2013.01 - CN); **C12Q 1/6869** (2013.01 - US); **C40B 40/08** (2013.01 - US); **C40B 50/06** (2013.01 - CN);
C12N 2310/20 (2017.04 - US); **C12N 2310/531** (2013.01 - US); **C12Q 2600/16** (2013.01 - US)

Citation (examination)
US 2012196279 A1 20120802 - UNDERWOOD JASON [US], et al

Cited by
US11649480B2; US11390904B2; US11560589B2; US11542551B2; US1186857B2; US11352664B2; US11459606B2; US11725205B2;
US10851409B2; US11168363B2; US11261487B2

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EP 3470529 A1 20190417; **EP 3470529 A4 20200205**; **EP 3470529 B1 20220518**; CN 107488656 A 20171219; CN 107488656 B 20200717;
JP 2019518476 A 20190704; JP 6894501 B2 20210630; US 11268139 B2 20220308; US 2019211384 A1 20190711;
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